

REMARKS

Applicant appreciates the Examiner's thorough consideration provided the present application. Claims 1-7 and 9-20 are now present in the application. Claims 1, 7 and 13 are independent. Reconsideration of this application, as amended, is respectfully requested.

Claim Rejections Under 35 U.S.C. § 103

Claims 1-4, 7, 10, 13, 15-17 and 20 are rejected under 35 U.S.C. §103(a) as being unpatentable over Kuroda et al, U.S. Patent No. 6,081,490 (hereinafter "Kuroda"), in view of Masaki et al, U.S. Patent No. 5,917,785 (hereinafter "Masaki"). Claims 5, 6, 11, 12, 18 and 19 are rejected under 35 U.S.C. §103(a) as being unpatentable over Kuroda in view of Masaki, and further in view of Büchler, U.S. Patent No. 6,266,305. Claims 9 and 14 are rejected under 35 U.S.C. §103(a) as being unpatentable under 35 U.S.C. §103(a) as being unpatentable over Kuroda in view of Masaki or unpatentable over Kuroda in view of Masaki and further in view of Iimura, U.S. Patent No. 5,936,921. These rejections are respectfully traversed.

Complete discussions of the Examiner's rejections are set forth in the Office Action, and are not being repeated here.

In light of the foregoing amendments, Applicant respectfully submits that these rejections have been obviated and/or rendered moot. While not conceding to the Examiner's rejections, but merely to expedite prosecution, as the Examiner will note, independent claims 1, 7 and 13 have been amended.

Independent claim 1 recites “detecting a wobbled signal from the signal track for reading the control information to adjust a rotating speed of the optical recording medium, wherein said detecting step is carried out in a free running state in which a focus servo is turned on and a tracking servo is turned off” and “performing tracking control using the tracking servo after adjusting the rotating speed of the optical recording medium”.

Independent claim 7 recites “detecting a wobbled signal from the signal track for detecting the present rotating speed of the optical recording medium, wherein said detecting step is carried out in a free running state in which a focus servo is turned on and a tracking servo is turned off” and “turning on a tracking servo for a regular recording or reproduction after the target rotating speed of the optical recording medium has been fixed with reference to the wobbled signal”.

Independent claim 13 recites “a tracking servo for performing tracking control on the optical recording medium”, “a wobble detecting part for detecting a wobbled signal formed by wobbling from the signal track at a time when a focus servo is turned on and the tracking servo is not operating”, “an information reading part for reading control information from the detected wobbled signal” and “a servo controlling part for using the control information to adjust a rotating speed of the optical recording medium”.

Applicant respectfully submits that the combination of steps and elements as set forth in amended independent claims 1, 7 and 13 are not disclosed or suggested by references relied on by the Examiner.

detected when a focus servo is turned on and a tracking servo is turned off as recited in claims 1, 7 and 13.

With regard to the Examiner's reliance on Masaki, this reference discloses that an index signal indicating the actual current rotational speed of the spindle motor 14 is directly sent from the spindle motor 14 to the spindle motor driving circuit 46 (see FIG. 16). The spindle motor driving circuit 46 then sends the actual current speed (the rotation detection signal N) to the motor control section 218 to determine if the actual current speed reaches the target speed (see FIGs. 16-17; col. 12, lines 48-67 and col. 13, lines 1-5). If the actual current speed has not reached the target speed, the motor control section 218 will ask the spindle motor driving circuit 46 to raise the rotational speed of the spindle motor 14 (see col. 12, lines 52-66). In other words, Masaki simply discloses *directly detecting the actual current rotational speed of the spindle motor 14 using the index signal derived from the spindle motor 14*. Therefore, Masaki's speed detection and speed adjustment are not done by reading any signal (e.g., the wobble signal) from a signal track on the optical recording medium, but by detecting the actual rotational speed directly from the spindle motor 14. Therefore, one of ordinary skill in the art would not have the motivation to modify Kuroda's wobble signal in view of Masaki to adjust the rotational speed of the motor.

In the alternative, although Masaki discloses a state that the focus servo is turned on and the tracking servo is turned off before the spindle motor raises to a target speed and that the focus servo is turned on when the spindle motor reaches the target speed, the on/off states of Masaki's tracking servo are *irrelevant to the speed adjustment of the spindle motor*. In particular, Masaki discloses that the reason that the tracking servo is turned off is because the PEP zone 260 and the SFP zones

262 and 264 are not a spiral track like the user zone 258 but a circular track (see FIG. 18; col. 14, lines 41-45). Therefore, the tracking control when reading the PEP and SFP zones is unnecessary. Therefore, one of ordinary skill in the art would not have the motivation to modify Kuroda's wobble signal in view of the on/off status of Masaki's tracking servo to adjust the rotational speed of the motor.

In the alternative, as recited in claims 1 and 7, the wobbled signal is detected from a signal track of the optical recording medium in a free running state (i.e., the focus servo is turned on and the tracking servo is turned off). However, Masaki's free running state only occurs when Masaki's optical device reads the PEP and SFP zones (circular tracks), and the PEP and SFP zones are *free of wobbling* because Masaki disclose that the tracking control when reading the PEP and SFP zones is unnecessary. Thus, even if Kuroda and Masaki were combinable, assuming *arguendo*, no wobble signal will be detected during Masaki's free running state.

With regard to the Examiner's reliance on Büchler and Iimura, these references have only been relied on for their teachings relating to dependent claims. These references also fail to disclose the above combinations of the steps and elements as set forth in independent claims 1, 7 and 13. Accordingly, these references fail to cure the deficiencies of Kuroda and Masaki.

In the alternative, the applied references also fail to teach dependent claims 2, 10 and 15. Dependent claim 2 recites "applying the detected wobbled signal having the PLL applied thereto to adjust the rotating speed of the optical recording medium". Dependent claim 10 recites "detecting the present rotating speed of the optical recording medium from the wobbled signal having the PLL applied thereto". Dependent claim 15 recites "a phase lock loop (PLL), the

detected wobble signal being applied to the PLL, the information reading part reads the control information from the wobble signal having PLL applied thereto”.

As shown in FIG. 3 of Kuroda, although the wobble signal SWB is applied to the phase lock loop (PLL) 18, the wobble signal having the PLL applied thereto (i.e., the signal SCK) is not used to adjust the speed of the motor as recited in claims 2, 10 and 15. In fact, the speed of the motor 2 is adjusted based on the *naked* wobble signal SWB, i.e., the wobble signal without applying the PLL. Since the secondary references also fail to teach any wobble signal, these references fail to cure the deficiencies of Kuroda.

Accordingly, the invention as recited in claims 1, 7, 13 and their dependent claims (due to their dependency) is patentable over the applied references, and the rejections should be withdrawn.

Additional Cited References

Since the remaining patents cited by the Examiner have not been utilized to reject the claims, but rather to merely show the state of the art, no further comments are necessary with respect thereto.

CONCLUSION

All the stated grounds of rejection have been properly traversed and/or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider all presently pending rejections and that they be withdrawn.

It is believed that a full and complete response has been made to the Office Action, and that as such, the Examiner is respectfully requested to send the application to Issue.

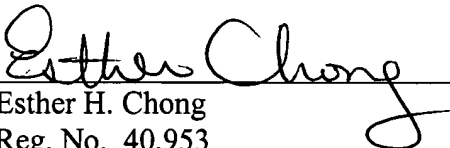
In the event there are any matters remaining in this application, the Examiner is invited to contact the undersigned at (703) 205-8000 in the Washington, D.C. area.

Pursuant to 37 C.F.R. §§ 1.17 and 1.136(a), Applicant respectfully petitions for a one (1) month extension of time for filing a response in connection with the present application and the required fee of \$120.00 is attached herewith.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Respectfully submitted,

BIRCH, STEWART, KOLASCH & BIRCH, LLP

By 
Esther H. Chong
Reg. No. 40,953

EHC/GH/mmi/asc

ENO

P. O. Box 747
Falls Church, VA 22040-0747
(703) 205-8000